





## DETAILS FOR DRAINAGE IN NEUTRAL AREA

① Vertical offsets in mm for right edge of ramp, when R $_1$ = 230 m					
Sections	Mainline on Tangent	Mainline Curved Right	Mainline Curved Left		
А	- 5	S.E.% ML × 300	S.E.% ML × 300 ②		
В	- 74	S.E.% ML × 4900	S.E.% ML × 4900 ②		
С	- 74	S.E. % ML × 4900	- 74		
D	- 392	- 392	- 392		

Vertical offsets in inches for right $\bigcirc$ edge of ramp, when R <sub>1</sub> = 765'				
Sections	Mainline on Tangent	Mainline Curved Right	Mainline Curved Left	
Α	- 0.18	S.E. % ML × 12	S.E. % ML × 12 ②	
В	- 3.0	S.E. % ML × 192	S.E. % ML × 192 ②	
С	- 3.0	S.E. % ML × 192	- 3.0	
D	- 15.4	- 15.4	- 15.4	

- ① Vertical offset values are calculated and based on the right edge of mainline pavement at 0.0 % grade.
- ② The vertical offsets of these points are above the mainline pavement and lie on an upgrade in relationship to the mainline grade.
- (3) S.E.=Superelevation Rate

transition zone from neutral area to design shoulder slope. In this area, the relative profile grade difference along the outside pavement edge and that along the outside shoulder edge shall not exceed 0.50%.

Shaded area indicates shoulder

## GENERAL NOTES

The initial ramp grade  $(G_2)$  is based on the line generated through the PI that is 32 m past Section C-C and the point created by the vertical offset at Section D-D.

See plans for actual grades.

All pavement joints shall be detailed as shown on Standards 420001 and 483001.

See Standard 483001 for ramp shoulder details.

In the neutral area, provide a swale and flush inlet to enhance drainage.

When using grades expressed in %, the grade values shall be divided by 100 to obtain vertical offsets.

Where an exit ramp terminal is proposed adjacent to a mainline horizontal curve, construct the edge of the terminal by using offset widths, and for the terminal segment downstream from Section C-C to R $_1$ , construct the ramp as a 43 m tangent section.

All dimensions are in millimeters (inches) unless otherwise shown.

## EXIT RAMP TERMINAL

(JOINTED PCC RAMP PAVEMENT ADJACENT TO JOINTED PCC MAINLINE PAVEMENT)
(Sheet 3 of 3)

STANDARD 420301-03

